

Abstract:

A system that reduces the time and cost of developing and maintaining a robust, scalable, secure, high performance web site that has a common look and feel and functionality that meets user requirements and takes full advantage of the underlying database management system. The system includes a toolkit, a code generator, and optional documentation generators. The toolkit comprises programs that can be stored in the database. The programs in the toolkit can be grouped into three categories: 1) core programs, 2) interface programs, and 3) application programs. The application programs reference the interface programs to generate dynamic web pages that have a common look and feel, can be customized for specific users, and automatically interface with both convention web browsers and compact mobile devices. The core programs provide robust functionality needed by high-end commerce sites. The application programs provide the customized functionality to display information from the database and to query the user for search criteria and data entry. Application programs are generated with a code generator that takes input from initialization files. Database tables, for both user data and system operation data, are created from scripts that are also used by documentation generators. The documentation generators produce accurate and timely documentation of the design details of the system.